



## Review

## Pre-hospital provider recognition of intimate partner violence

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## ABSTRACT

The leading risk factor of morbidity and mortality in Victorian women aged between 15 and 45 years is intimate partner violence (IPV) (approximately 8 times than that of smoking). Paramedics are frequently the first point of contact for victims of IPV. Due to this unique viewpoint, paramedics have the advantage of potentially identifying and reporting IPV, which can then result in early intervention. This article will summarise the literature regarding pre-hospital provider knowledge of IPV.

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## 1. Introduction

The leading risk factor of morbidity and mortality in Victorian women aged between 15 and 45 years is intimate partner violence (IPV).<sup>1</sup> This has an extremely high cost to the individual and the community as a whole. IPV is a form of domestic violence between two individuals currently or previously involved in a relationship; it is characterised by physical, verbal, sexual and psychological abuse.<sup>2</sup> This is an aspect of domestic violence, which also encompasses abuse between family members (e.g. elder abuse) and child abuse. As well as the physical and health consequences of IPV, women who are victims of IPV suffer more depression, phobias and anxiety than women who are not abused, and they are also at a greater risk of suicide.<sup>3</sup>

There are several well-documented barriers to reporting IPV including a fear of being disbelieved, fear of retribution and a lack of confidence in the medical/health response. It is also noted from National personal safety surveys and the International Violence against women survey that many women never tell anyone about their experience of physical violence (approximately 25%) despite the assumption that many would have sought both medical and emergency care on occasions. It is not surprising therefore, that in the pre-hospital setting IPV is not outwardly declared at the time of seeking emergency medical treatment.<sup>4</sup>

Paramedics are frequently the first point of contact for victims of IPV, often called post-incident and instead of law enforcement.<sup>5,6</sup> Datner et al.<sup>7</sup> surveyed female patients admitted to an emergency department found that women suffering from domestic violence were significantly more likely to access emergency services via '911 emergency calls' than non-victims. Likewise a telephone survey performed by Singleton et al.<sup>6</sup> in the US indicated that the public perceives EMS as second only to law enforcement as the most appropriate contact for victims of IPV, more suitable than social workers, family, friends and religious figures. In a recent descriptive study<sup>4</sup> in Canada, 90% of paramedics had attended at least one IPV call in the preceding year, yet, over 80% felt they had not received adequate education or training in the area of IPV. The authors concluded that specific IPV training should be provided to paramedics, and argued that the area of IPV should be integrated in paramedic core curricula.

The literature overwhelmingly indicates that pre-hospital providers have a unique advantage to identify and report IPV over other healthcare professionals.<sup>2,5,7–20</sup> This identification can potentially lead to early intervention and prevention of further injury/threat or harm to the victim. For this to occur, paramedics should be competent and confident in identifying IPV victims and report appropriately. Education is the key to ensuring that paramedics are capable of recognising environmental clues and patterns of injury that indicate IPV. These include (but are not limited by) bruises at multiple stages of healing, signs of strangulation, refusal to transport, re-arranged furniture, a history of events that does not seem to match the clinical findings and injuries occurring hours or days prior to the emergency call.<sup>11,13</sup>

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The potential impact that paramedics can have on this burden of disease is significant. The aim of this paper is to review the literature regarding pre-hospital provider knowledge of IPV.

## 2. Methods

A literature review was undertaken using several electronic databases, these included:

- Cochrane Database of Systematic Reviews (to April 2009)
- Ovid MEDLINE (1950–April 2009)
- EMBASE (1950–April 2009)
- CINAHL (1937–April 2009)
- ProQuest (1950–April 2009)
- PubMed (1950–April, 2009)

The following MeSH terms were used in the search:

*Emergency medical technician, emergency medical services, domestic violence.*

Using truncation, the search strategy used the following key words:

*Intimate partner violence or physical abuse or sexual assault and Paramedic or ambulance or emergency treatment or pre-hospital or pre-hospital or out-of-hospital or out of hospital or emt or ems or emergency medical service or emergency rescue.*

Other articles were reviewed for references from the retrieved papers to identify relevant articles that may have been missed during the initial search process. Articles were excluded if they contained research on child abuse.

## 3. Literature review results

The initial search located over 3000 articles. Articles were included in this review if the title and abstract indicated that they addressed IPV or domestic violence in the pre-hospital setting. Using the inclusion criteria a total of 20 papers were included in this review (see Table 1).

Table 1 includes articles that measured either paramedic knowledge, ability to identify or report IPV.

The remaining articles were not included in Table 1 if they did not make specific reference to paramedic knowledge, reporting ability or capacity to identify IPV.<sup>9,11,12,14,15,17,21</sup> A number of articles studied different outcomes to the present literature review, such as refusal to transport, domestic violence rates, or public attitude towards IPV and were not included in Table 1.<sup>6,7,22</sup>

## 4. Discussion

The literature review found that pre-hospital providers are limited in their knowledge of, and ability to identify and report IPV.<sup>2,8,10,18,20</sup> Educational interventions were capable of increasing this knowledge,<sup>2,5,8,18</sup> but not necessarily the screening and reporting ability.<sup>8,10,18</sup> There was a relative paucity of information

**Table 1**  
Located literature.

Author, Date and country	Participants	Study type	Key findings	Limitations
Allert et al., <sup>7</sup> 1997, US	226 emergency department staff and pre-hospital care providers	Evaluation research utilising survey	Education increased knowledge but did not increase routine questioning 3-months post-education.	3-months not long enough to assess education success.
Boergerhoff et al., <sup>9</sup> 1999, US	7363 ambulance run report forms. 13 emergency event run forms.	Retrospective chart review and evaluation	73% of run sheets contained errors in area of interest. Education did not improve reporting of violence related cases.	Lack of organisational support.
Hall & Becker, <sup>4</sup> 2002, US	EMS personnel from all rural Oregon agencies	Evaluation research utilising survey	Educational intervention resulted in increased knowledge, attitudes and situational problem solving in relation to domestic violence.	Lack of specific results published.
Husni et al., <sup>12</sup> 2000, US	876 ambulance run sheets	Retrospective chart review	13.4% of charts were labeled probable or suggestive of domestic violence by the data abstractor and lacked in the relevant documentation to accurately diagnose domestic violence.	Retrospective design and potential bias in diagnosing domestic violence.
Lanzilotti et al., <sup>22</sup> 1999, US	144 EMS personnel	Cross-sectional survey	21.5% of respondents indicated that their organisation has an institutional policy aimed at domestic violence. 67.4% received organisational training on an appropriate EMS response to domestic violence.	Self-report data.
Rinker, <sup>15</sup> 2009, US	400 EMS and emergency department staff	Cross-sectional survey	Over 95% of respondents believed that elder abuse was not a rare event. 49.75% had not come in contact with a victim in the past 12 months.	Self-report data.
Seamon et al., <sup>17</sup> 1997, US	60 EMS personnel	Evaluating research utilising survey	Elder abuse knowledge improved after a 45-min training course. However 40% still believed they weren't capable accurately identifying elder abuse.	Post-test completed immediately upon completion of educational course.
Weiss et al., <sup>19</sup> 1999, US	49 EMT's	Cross-sectional survey	EMT self-report of domestic violence differed from the Index of Spouse Abuse questionnaire. EMT's rarely listed medical facility as to where they would approach for help if they were victims.	Self-report data. Did not ask participants whether they were offenders, only victims.
Weiss et al., <sup>2</sup> 2000, US	46 EMT's, 19 of the 46 participated in the 4–6 month post-test	Evaluating research utilising survey	Knowledge increased from 54% in the pre-education test to 71% in the post-test; significant improvement.	Small sample size and poor follow up sample.
Weiss et al., <sup>18</sup> 2000, US	43 ambulance transports from domestic scenes	Comparative study	81% agreement on reporting domestic violence compared to independent observer.	Small sample size. Reliability between 2 observers.

EMT: emergency medical technician; US: United States.

regarding this topic and the included literature is limited to the United States (US); there was no Australian pre-hospital-related literature.

There has been no formal research performed within Australia regarding either knowledge, reporting ability or screening of IPV in the pre-hospital setting; that is ambulance officers and paramedics across Australia. Due to the differences in training, education and organisational structure of ambulance services worldwide, it is difficult to make comparisons. The research performed in the US to date has indicated that pre-hospital providers have a poor to moderate knowledge of IPV and are limited in their ability to identify and report IPV, however educational interventions have the potential to increase this knowledge.<sup>2,5,8,10,18,20</sup>

Weiss et al.<sup>2</sup> assessed a 3-h educational lecture on domestic violence, including information on history, extent, prevalence, laws, types and stages of domestic violence, screening tools, and potential barriers. A pre-intervention test resulted in 46 emergency medical technicians scoring an average of 54% answers correct. The post-intervention test occurred between 4 and 6 months subsequent to the educational lecture and resulted in a significant improvement of 17%. Limitations to this study were that the post-intervention sample was small, only 19 participants and the study did not measure the pre-hospital providers ability to identify and report IPV.

Although knowledge is an important aspect of identifying IPV, it does not necessarily correlate with screening ability. Allert et al.<sup>8</sup> also evaluated an educational training session on domestic violence. Two hundred and twenty-six pre-hospital providers and emergency department staff participated. Knowledge increased comparing pre- and immediately post-training test results and was also sustained during a further 3-month post-training examination. The 3-month post-training survey also indicated that paramedics did not routinely screen patients for domestic violence and only 31% were confident in asking questions regarding IPV. These results are similar to a study by Seamon et al.<sup>18</sup> where 40% of 60 EMS personnel indicated they still were not confident enough to identify elder abuse following a 45-min training intervention. Continuing education and training seem central in improving pre-hospital provider's confidence and ability to identify IPV and warrants further investigation.

There are a number of perceived barriers that prevent and deter pre-hospital providers from making accurate identifications of IPV. Boergerhoff et al.<sup>10</sup> performed a study comparing paramedic documentation of violence related cases to an independent observer following a training session, disagreement occurred on 77% of the cases. Documentation is argued to be essential for effective reporting and intervention of IPV.<sup>9,11–13,15</sup> During the training session of the Boergerhoff et al.'s<sup>10</sup> study, qualitative information was obtained regarding specific barriers to screening violent related cases. These included a need for organisational support to make IPV screening compulsory, fear of legal liability for documentation, and distrust of patient self-report data. Paramedic attitudes and behaviours regarding data collection were a major barrier, as the majority believed violence was a law enforcement area and felt personal discomfort discussing the issue; especially regarding IPV.

Screening aids are a potential resource that could be utilised in the pre-hospital field to aid in the identification of IPV. Weiss et al.<sup>19</sup> assessed the non-validated Domestic Violence Scene Assessment Screen (DVSAS), which is able to be completed post-transport by pre-hospital staff, in comparison to the Abuse Assessment Screen (AAS), a validated IPV screening tool. Forty-three transports from a domestic scene were included in the study. Paramedics DVSAS results reflected those of an independent assessor in 81% of the cases, whilst the DVSAS scores correlated with the AAS results in

66% of the cases. The major limitation of the study was that not all of the patients included in the study were able to complete the AAS due to either refusal or serious injury. The study successfully indicated that paramedics are capable of completing an IPV screen at the hospital post-transport with good agreement of results in comparison to an independent observer.

What has not been clear from the literature review is whether the increase in training and therefore knowledge/confidence of paramedics regarding IPV significantly altered their practice or indeed even improved the outcomes for victims. It is important to be clear about the purpose of increasing awareness of IPV in the pre-hospital setting and therefore develop an appropriate pre-hospital response (to be integrated into a total health response) when IPV is recognised. At present, this has not been well articulated in the literature.

Further discussion should take place about the limitations of paramedics in accurately identifying IPV but rather their ability to raise concerns regarding IPV with the benefit of cues in the history, presentation, examination findings, assessment of the environment and people at the scene.

As noted above, there are well-documented barriers to reporting IPV by the individual experiencing the violence, but what needs to be explored is whether there are also a set of barriers to declaring suspicions of IPV in patients or documenting clear signs that such is occurring. Perhaps these relate to the perceived lack of knowledge, a focus on priority emergency management, low levels of suspicion, consequences of reporting or documenting (i.e. legal, medical, investigatory) and relationships between the emergency professions (doctors, police etc.). There is a lack of information regarding these factors from current literature and well-deserved exploration in the Australian context.

It would be remiss in a discussion about the identification of IPV to fail to address the role of paramedic identification and reporting of child abuse. Whilst this was not the focus of the literature review nor the below recommendations, it would seem there is a significant reason to explore opportunities to improve knowledge and recognition skills in this area and therefore increase identification of child abuse cases. The identification of child abuse in the pre-hospital setting may also significantly alter practice, improve patient outcomes and by reason of referral, hopefully play a role in prevention of further episodes of violence to children.

Several recommendations have been made following the literature review:

1. Studies need to be conducted within Australia to determine the capability of pre-hospital providers in identifying and reporting IPV, due to the differences internationally in pre-hospital education and training.
2. Further research should be conducted focusing on barriers to identification and reporting of IPV.
3. To verify the quality of IPV screening by paramedics in the pre-hospital setting, developing and validating a pre-hospital IPV screening tool should be undertaken.

## 5. Conclusion

The located literature on pre-hospital provider knowledge and reporting ability of IPV has been performed outside of Australia. Overall, pre-hospital IPV knowledge is poor to moderate but has the capacity to be increased in the short-term by educational training programs. There is a need for ongoing training to ensure that paramedics increase their confidence in repeated IPV screening. Early identification and intervention is a crucial aspect in IPV injury prevention where the paramedic has a unique advantage. Further

investigation needs to be conducted within Australia to determine pre-hospital efficacy in identifying IPV and potential barriers. The development of an IPV screening tool and organisational implementation could potentially see early intervention increase due to pre-hospital identification and reporting.

#### Conflict of interest

No competing interests.

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